

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for measuring and analyzing bioluminescence, comprising the steps of:

receiving a luminescence measurement result group in real-time from a sample group of organisms with time stamp,

sorting as time series data and displaying in real-time said luminescence measurement result group,

receiving a newer luminescence measurement result group in real-time from said sample group of organisms with time stamp, and

sorting as time series data and displaying and maintaining in real-time said the another newer luminescence measurement result group, ~~instead of said luminescence measurement result group.~~

2. (Currently Amended) A method for measuring and analyzing bioluminescence, comprising the steps of:

preparing a plurality of sample groups of organisms,

receiving first luminescence measurement result groups in real-time from said sample groups of organisms,

sorting as time series data and displaying and maintaining in real-time said first luminescence measurement result groups,

receiving second luminescence measurement result groups in real-time from said sample groups of organisms,

sorting as time series data and displaying and maintaining in real-time said second luminescence measurement result groups, ~~instead of said first luminescence measurement~~

~~result groups~~, and

comparing in real time said second luminescence measurement result groups.

3. (Currently Amended) The method as defined in claim 1, further comprising the steps of:

storing said luminescence measurement result group sorting as time series data and said ~~another newer~~ luminescence measurement result group as time series data, and

comparing said luminescence measurement result group and said ~~another newer~~ luminescence measurement result group through reading out.

4. (Currently Amended) The method as defined in claim 2, further comprising the steps of:

storing said first luminescence measurement result groups sorting as time series data and said second luminescence measurement result groups as time series data, and

comparing said first luminescence measurement result groups and said second luminescence measurement result groups through reading out.

5. (Currently Amended) The method as defined in claim 1, further comprising the step of analyzing the rhythm of at least one of said luminescence measurement result group sorting as time series data and said ~~another newer~~ luminescence measurement result group sorting as time series data.

6. (Currently Amended) The method as defined in claim 2, further comprising the step of analyzing the rhythm of at least one of said first luminescence measurement result groups sorting as time series data and said second luminescence measurement result groups as time series data.

7. (Original) The method as defined in claim 1, further comprising the step of performing mutant screening statistically.

8. (Original) The method as defined in claim 2, further comprising the step of

performing mutant screening statistically.

9. (Currently Amended) The method as defined in claim 1, further comprising the step of outputting analysis data on said luminescence measurement result group and said another newer luminescence measurement result group.

10. (Original) The method as defined in claim 2, further comprising the step of outputting analysis data on said first luminescence measurement result groups and said second luminescence measurement result groups.

11. (Currently Amended) An apparatus for measuring and analyzing bioluminescence, comprising:

a receiving means to receive a luminescence measurement result group in real-time from a sample group of organisms, and

a measurement controlling means to output a control signal for receiving said luminescence measurement result group,

a sorting means to sort said luminescence measurement result group, and  
sorting as time series data and displaying a displaying and maintaining means to display  
and maintain in real-time said luminescence measurement result group.

12. (Original) The apparatus as defined in claim 11, further comprising a comparing means to compare data of said luminescence measurement result group.

13. (Currently Amended) The apparatus as defined in claim 11, further comprising a the steps of a storing means to store said luminescence measurement result group.

14. (Original) The apparatus as defined in claim 11, further comprising an analyzing means to analyze the rhythm of said luminescence measurement result group.

15. (Original) The apparatus as defined in claim 11, further comprising a statistical mutant screening means.

16. (Original) The apparatus as defined in claim 11, further comprising an outputting

means to output analysis data on said luminescence measurement result group.

17. (Currently Amended) A program for measuring and analyzing bioluminescence, comprising:

a receiving means to receive a luminescence measurement result group in real-time from a sample group of organisms, and

a measurement controlling means to output a control signal for receiving said luminescence measurement result group,

a sorting means to sort said luminescence measurement result group, and  
sorting as time series data and displaying a displaying and maintaining means to display  
and maintain in real-time said luminescence measurement result group.

18. (Original) The program as defined in claim 17, further comprising a comparing means to compare data of said luminescence measurement result group.

19. (Currently Amended) The program as defined in claim 17, further comprising a ~~the steps of~~ a storing means to store said luminescence measurement result group.

20. (Original) The program as defined in claim 17, further comprising an analyzing means to analyze the rhythm of said luminescence measurement result group.

21. (Original) The program as defined in claim 17, further comprising a statistical mutant screening means.

22. (Original) The program as defined in claim 17, further comprising an outputting means to output analysis data on said luminescence measurement result group.